

**REMARKS**

Claims 1, 4, 5, 8, 11-13, 15, 17-20 have been amended and Claims 2, 3, 10 and 14 canceled. Claims 1, 4-9, 11-13 and 15-20 remain pending in this application.

I. **Rejection of Claims 1-20 under Section 112**

The Examiner has rejected the claims under Section 112.

As to Claim 1, the use of the language "pre-forming" was deemed to be new matter. Accordingly, Applicant has amended the claims to remove this reference. Claim 1 now reads "providing an undulating strand of wire". Support for this amendment is found in paragraph 30 of the instant application, as published in Pub. No. 2004/0108045. Therefore, no new matter is present in Claim 1.

Also, Claim 1 was deemed not to be enabling because the preamble indicates a "sealing strip" but includes voids therein. As per the Examiner's suggestion, Claim 1 has been amended to claim a completed "sealing strip". Thus, the claimed invention in Claim 1 can serve as a sealing as set forth in the preamble and is, therefore, enabling under Section 112.

Claim 1 was rejected as being indefinite for use of "pre-forming". As stated above, this language has been removed. As a result, Claim 1 is now definite and clear.

Claim 3 was rejected as being indefinite for lack of antecedent basis for "filler layer". The limitations have now been incorporated into Claim 1 rendering this rejection moot.

Claim 5 was rejected for lack of antecedent basis for "said U-shaped profile". The dependency in Claim 5 has now been changed to be on Claim 4 so that antecedent basis for the above language is now provided.

Claim 8 was rejected for lack of antecedent basis for the language of "longitudinal carrier material". Claim 8 has been amended to correct this issue.

In view of the foregoing, Applicant submits that the claims are now definite and clear under Section 112.

## **II. Rejection of Claims under Section 102**

Claims 1-2, 4, 6 and 9 stand rejected under Section 102 as being anticipated by King (US 6461713).

The office action states that King discloses a method of making a carrier for use as a reinforcement of an extruded elastomeric sealing strip. The office action states that King's method includes folding a wire back and forth and then welding an elongation reducing member thereon.

Claim 1 has been amended to require that the undulating wire has clips with first and second legs of each clips that form a straight line inwardly tapered V-shaped junction at each bend. For example, in Fig. 4, applicant's method provides a undulating wire that has a V-shaped junction at each bend. Such a unique V-shaped junction at a bend can only be formed by a special wire bending machine as a standalone process not part of the knitting process as shown in the prior art.

King only shows banana-shaped or racetrack-shaped junctions. This is not surprising because King teaches knitting longitudinal members 16 and 22 on the wire using a knitting machine. Such knitting machines are weaving machines and are not capable of forming a wire profile of the type seen in Fig. 4 or 5, for example. In fact, wire knitting machines cannot form *wire* into an undulating configuration that is asymmetrical about the longitudinal centerline of the component.

In applicant's invention, the wire is first formed into the desired shape with unique V-shaped bends and then at least one "carrier member" is adhered thereto. In other words, a complete undulating wire frame is first provided and then the longitudinal member or members are adhered thereon.

The V-shaped bends are very important to the method of the present invention as previously discussed. Applicant's solves the problems with the prior by providing a vastly improved supporting carrier for the assembly. Instead of changing the longitudinal reinforcement strands on the supporting carrier as in Matsumiya, for example, Applicant provides a superior wire carrier. The unique ability to provide a straight line inward taper enables a tight bend at the bottom with no gaps at the top. Each of the lateral cross members of the wire are virtually perpendicular to the path of the indicated arc thus providing even support and distribution of the wire in the assembly to provide consistent elongation along the entire length of the assembly. This is not possible with prior art reinforced uniform knitted wire or reinforced uniform slotted or formed metal.

Also, King fails to teach the step of filling the voids in the wire with a filler material. King is completely devoid of this step. The office action states that "the elastomeric sealing strip is taken to be the recited filler material because the strip encapsulates a resultant reinforcing carrier". This application of King for this purpose is without merit and is clear hindsight reconstruction of applicant's invention. King, in fact and as admitted in the office action, teaches an encapsulating sealing strip. Applicant not only encapsulates the wire but also filler material that was previously filled into voids in the wire. King completely omits the step of *filling* the voids between the wire passes with a filler material. King merely *covers* the voids by the sealing strip. Therefore, King cannot anticipate Claim 1 under Section 102.

In view of the foregoing, King fails to teach the step of providing an undulating wire with V-shaped junctions as required in Claim 1, as amended. Still further, King fails to teach the step of filling the voids with a filler material. Since Claim 1 is now allowable, Applicant submits that Claims 2, 4, 6 and 9, which are indirectly or directly dependent thereon, are also allowable over the cited prior art.

Therefore, King does not anticipate Claims 1-2, 4, 6 and 9 under Section 102. The foregoing claims, as amended, are patentable over King.

**III. Rejection of Claims under Section 103**

A. Claims 1-2, 4, 6-7, 9-10 and 20 (Matsumiya, King, Bright et al.)

Claims 1-2, 4, 6-7, 9-10 and 20 stand rejected under Section 103(a) as being unpatentable over Matsumiya (US 5204157) in view of King (US 6461713) and optionally further in view of Bright (US 4699837).

The office action states that Matsumiya and King (and optionally in view of Bright et al.) teaches Claims 1-2, 4, 6-7, 9-10 and 20 because Matsumiya teaches undulating wire with axially oriented strands as does King. Bright et al. is cited for the teaching of a preformed zig zag configuration.

The limitations of Claim 10 have now been incorporation into Claim 1. Claim 10 has now been canceled. None of the cited prior art references herein teach bends that have a straight inward taper to permit tight roll forming, as now required by Claim 1. None of the prior art reference teach or suggest using such a straight inwardly tapered end with a longitudinal member adhered thereon rather than just knitted thereon. Such a limitation is required in Claim 1. Therefore, even assuming that they are combinable under Section 103, they still fail to teach applicant's invention, as amended.

As Claim 2 (the limitations of which have been incorporated into Claim 1), none of the cited references teach *filling* the voids with a filler material and, thereafter, *extruding* a sealing element thereabout. These are two separate steps and specified in the claims. The cited prior art (Matsumiya and Bright) merely teach placing a covering about the wire and reinforcing members. The office action states that "an extruded rubber/elastomeric material is taken to be the recited filler material. This citation of a *structural* component does not meet the limitations of the *method* claim of Claim 1. Claim 1, in fact, requires a method of forming a sealing strip. This method requires the

step of filling voids with a given material, then, in a separate step, extruding a sealing element. While an extruded cover of Matsumiya or Bright may fill some of the voids between the wire passes, these references do not teach the same method as required by Claim 1. The step of purposely filling the voids in the wire passes in a separate step greatly lessens the hungry horse problem better than just extruding a covering. Moreover, in paragraph 10 of the office action, it is admitted that Matsumiya does not teach the filler material (the step of filling the voids with filler material).

Therefore, King, Matsumiya and Bright, alone or in combination fail to teach the method set forth in Claim 1, as amended.

Pending Claims 4, 6-7 and 9 depend from now allowable Claim 1, these dependent claims are also submitted as being allowable.

As to Claim 20, the cited references are completely devoid of a teaching of the formed wire being *asymmetrical* about the longitudinal centerline. The comments on page 9 of the office action are insufficient to meet the limitation required by Claim 20. More specifically, the general statement that "Matsumiya is not restrictive to forming a symmetrical serpentine wire" is the result of hindsight reconstruction of the applicant's method. Matsumiya merely states that transverse elements need not be parallel and that they could be banana or propeller shaped. This statement is completely silent as to symmetry of the wire configuration about the longitudinal centerline of the strip. Asymmetry is being read into Matsumiya when there is no disclosure support for this position. Thus, the prior art completely fails to disclose the limitations of Claim 20 as to asymmetry of the wire configuration.

B. Claims 2 and 14-17 (Matsumiya, King, Bright et al., Keys)

Claim 2 requires filler material disposed within the voids. As stated above, the limitations of Claim 2 have now been incorporated into Claim 1. None of the cited references teach the filling of V-shaped voids between an undulating wire member that

includes straight line inwardly tapered V-shaped junctions. Thus, the cited prior art fails to teach the claim invention, as amended, in Claim 2. Since Claim 1 is now allowable, applicant submits that Claim 2 is now also allowable over the cited prior art.

Moreover, the prior art references do not teach the separate step of filling the voids in the wire passes with filler material. The office action admits that Matsumiya and King do not teach this step. Keys is cited for the general teaching of the use of a filler material to embed individual free-floating clips 16. In contrast, applicant's invention includes providing V-shaped bends in the wire with associated V-shaped voids. Claim 1 requires the step of filling the V-shaped voids with a filler material. Such a step is not taught by Keys.

The use of V-shaped junction bends in the wire instead of the individual clips is not simply a design choice. The individual clips of Keys must be carefully kept in place with magnets during the application of the filler material. Also, the clips 16 of Keys have sharp free ends that can emanate through the outer casing and cause injury. The present invention is an advance over Keys where applicant's unique formed wired assembly V-shaped bends with no sharp free ends, as found in Keys. As a result, such V-shaped bends are much safer than Keys' individual metal clips. This is a significant advance in the art. Thus, the step of filling the unique V-shaped voids formed by the wire at each bend is not shown or suggested by the cited prior art.

As to Claims 14-17, the prior art fails to disclose the steps of adhering mask layers to a wire assembly that includes the required filled V-shaped junctions. Thus, the cited prior art fails to teach the claims, as amended. Since Claim 1 is now allowable, applicant submits that claims 14-17 are now also allowable over the cited prior art.

C. Claims 3 and 5 (Matsumiya, King, Bright et al. and Burden or FR 2524406)

Claim 3 requires extruding a sealing element adjacent to and connected to the filler layer. Applicant admits that extruding sealing elements are well known in the art.

However, extruding such a sealing element on a component that includes a wire configuration that includes previously filled V-shaped junctions is not known in the art. Since Claim 3 depends from now allowable Claim 1, applicant submits that claim 3 is now also allowable.

Claim 5 calls for connecting the sealing element to one of the legs of the U-shaped profile. Connecting sealing elements to U-shaped profiles, in general, may be known in the art but it is not known in the art to do so where the underlying wire configuration includes unique filled V-shaped junctions as required by Claim 1. Since Claim 5 depends from now allowable Claim 1, applicant submits that Claim 5 is now also allowable.

D. Claim 10 (Matsumiya, King, Bright et al. and Schlegel or GB 1478963)

Claim 10 has been canceled because the limitations contained therein have been incorporated into base Claim 1. In view of the cancellation of Claim 10, the rejection relating thereto is now moot.

For completeness of discussion, the patentability of Claim 1, relating to the limitations from Claim 10, will be discussed below in view of the citation of Schlegel and GB '963. U.S. Patent No. 2070624, issued to Schlegel, or the GB reference was cited for the teaching of V-shaped junctions. The office action states that Schlegel or GB '963 teaches the desire to form V-shaped junctions at the bends. Both of these cited references generally teach the use of V-shaped junctions at the bends of a reinforcing structure.

However, both of the cited references, in combination with the primary references, fail to teach the invention, as amended. While Schlegel and GB '963 teach V-shaped junction bends in the wire, the longitudinal reinforcing members are still connected thereto by knitting or stitching.

In Schlegel, see page 2, column 1, lines 17-23. This is not surprising because the substrate employed is flexible fabric. There is no suggestion or teaching why Schlegel would want to use its V-shape bends in another environment, such as one that would employ filler material and a sealing component, such as in applicant's invention. Moreover, Schlegel is not combinable with Matsumiya, King or Bright for the same reason. There is no teaching or suggestion in Schlegel to provide V-shaped bends in a wire, affix longitudinal reinforcing member to it and then fill the V-shaped voids with a filler material.

In GB '963, on page 2, column 2, lines 90-91, the reinforcing fibers are linked to the undulating wire by knitting or weaving. Again, this is unlike the method the present invention which requires that the longitudinal reinforcing member be adhered to the wire with V-shaped bends by an adhesive. There is not suggestion or teaching in the cited prior art references that support a teaching of an undulating non-knitted wire that has a longitudinal reinforcing member adhesively connected thereto which also can be extruded. Thus, the cited combination cannot be maintained under Section 103.

The prior art references, even assuming they are combinable under Section 103, fail to teach an sealing strip that has a formed wire structure with straight inwardly tapered V-shaped bends where a reinforcing member is adhered thereto where the V-shaped voids formed thereby are filled with a filler material. The rejection of Claim 10 under Section 103 using over three references is clear hindsight reconstruction of applicant's invention, as amended. There is simply no motivation to combine all of the cited references to arrive at applicant's invention.

In view of the foregoing, applicant submits that the limitations of Claim 10 (now in Claim 1) are allowable over the cited prior. Therefore, Claim 1 is patentable over the cited prior art.



E. Claims 11-13 (Matsumiya, King, Bright et al. and Cook)

Claims 11-13 are dependent on now allowable Claim 1. Therefore, applicant submits that claims 11-13 are now also allowable over the cited prior art.

F. Claims 8 and 15-19 (Matsumiya, King, Bright et al.)

Claims 8 and 15-19 are dependent, either directly or indirectly on now allowable Claim 1. Therefore, applicant submits that claims 8 and 15-19 are now also allowable over the cited prior art.

**IV. Conclusion**

Applicant submits that the claims, as amended, are allowable over the cited prior art. In the office action, various prior art references have been combined together to arrive at applicant's invention where various pieces of technology have been pieced together. This is clear hindsight reconstruction of applicant's invention and cannot support a rejection under Section 103.

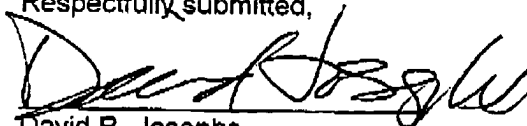
In view of the above, Applicants submit that pending Claims 1, 4-9, 11-13 and 15-20 are now in condition for allowance. Reconsideration of the Rejections and Objections are requested. Allowance of Claims 1, 4-9, 11-13 and 15-20 at an early date is solicited.

If an extension of time is required for timely submission of this response, Applicant hereby petitions for an appropriate extension of time and the Office is authorized to charge Deposit Account 02-0900 for the appropriate additional fees in connection with the filing of this response.

The Examiner is invited to telephone the undersigned should any questions arise.

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Respectfully submitted,



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